IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Kwang-hee Lee et al. Serial No.: To Be Assigned Filed: Concurrently Herewith

For: Methods of Manufacturing Semiconductor Devices Having a Ruthenium Layer

Using Via Atomic Layer Deposition and Associated Apparatus and Devices

Date: March 16, 2004

Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)

Sir:

Attached is a list of documents on Form PTO-1449, together with a copy of any listed foreign patent document and/or non-patent literature. A copy of any listed U.S. patent and/or U.S. patent application publication is not provided herewith in accordance with the waiver by the U.S. Patent and Trademark Office of requirements under 37 C.F.R. § 1.98(a)(2)(i) for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 USC § 371 after June 30, 2003.

It is requested that these documents be considered by the Examiner and officially made of record in accordance with the provisions of 37 C.F.R. § 1.56 and Section 609 of the MPEP.

No fee is believed due. However, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

Respectfully submitted,

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Michele P. McMahan

Substitute form 1449A/PTO				Complete if Known		
				Application Number	To Be Assigned	
INFORMATION DISCLOSURE				Filing Date	Concurrently Herewith	
STATEMENT BY APPLICANT (use as many sheets as necessary)				First Named Inventor	Kwang-hee Lee et al.	
			•	Group Art Unit	Unknown	
				Examiner Name	Unknown	
Sheet	1	of	1	Attorney Docket Number	5649-1277	

U.S. PATENTS AND PATENT PUBLICATIONS						
Examiner Initials*	Cite No.	U.S. Patent D		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	
		Number	Kind Code (if known)	- Bodanent	MM-DD-YYYY	
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				FOREIGN F	PATENT DOCUMENTS		
Examiner Initials*	C	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Т
	it e N o.	Office	Number	Kind Code (if known)	Document	MM-DD-YYYY	
	1	Korean Abstract	1020030002128	Α	Song, Chang Rok	01-08-2003	
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OTHER NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T		
			 		
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Examiner Signature	Date Considered	

^{*}EXAMINER: Initial if reference considered; whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.